

Case 3011

***Strombidium gyrans* Stokes, 1887 (currently *Strobilidium gyrans*) and *Strobilidium caudatum* Kahl, 1932 (Ciliophora, Oligotrichida): proposed conservation of the specific names**

Charles W. Heckman

*Institut für Hydrobiologie und Fischereiwissenschaft, Zeiseweg 9,
D-22765 Hamburg, Germany (e-mail: hy6a006@rrz.uni-hamburg.de)*

Abstract. The purpose of this application is to conserve the specific name of one fresh water ciliate (*Strombidium gyrans* Stokes, 1887) that has frequently been used as an indicator for the ecological monitoring of water quality and of another (*Strobilidium caudatum* Kahl, 1932) that was given to a rare but characteristic brackish water species. Both names are threatened by *Strombidion caudatum* Fromentel, 1876, which is probably a senior synonym of the first and is a senior secondary homonym of the second. *Strombidion caudatum* Fromentel had not been used for almost a century until its reintroduction by Foissner (1987); its suppression is proposed.

Keywords. Nomenclature; taxonomy; Protozoa; Ciliophora; Oligotrichida; *Strobilidium gyrans*; *Strobilidium caudatum*; fresh water and brackish water ciliates.

1. In the last quarter of the 19th century the following three names were established for fresh water ciliates:

Strombidion caudatum Fromentel, 1876 (p. 264, pl. 24, figs. 7–8);

Strombidium claparedi Kent, 1882 (p. 634, pl. 32, fig. 46);

Strombidium gyrans Stokes, 1887 (p. 37, pl. 5, figs. 11–12).

2. The last name came to be widely used, and in 1932 Kahl (p. 510) redescribed the species and placed the other two names (*Strombidion caudatum* Fromentel and *Strombidium claparedi* Kent) in synonymy, stating that he believed all three names to refer to the same species. He rejected the two senior names on the grounds, apart from usage, that their descriptions were inadequate to determine with certainty which species they referred to. He noted that Stokes had seen Kent's publication and had been unable to recognize his own specimens as belonging to Kent's species. Kahl recommended that *gyrans* should be the name applied to the species since this was the name that had been generally accepted; he assigned the species to the genus *Strobilidium* Schewiakoff, 1892. In the same paper, Kahl (1932, p. 511) described a new species, *Strobilidium caudatum*, from the Kiel Bight.

3. The two specific names published by Fromentel and Kent were unused for almost a century, while the name *Strobilidium gyrans* has always been widely used both in systematic papers and in ecological publications and faunal lists. However, in 1987 Foissner (p. 225) rejected the name *Strobilidium gyrans* Stokes, 1887 in favour of the senior probable synonym, *Strombidion caudatum* Fromentel, 1876, on the grounds that the descriptions by both Stokes and Fromentel were superficial and that Kahl should not have deprived Fromentel of priority in naming the species. In this

Foissner was correct as far as priority is concerned, but the reintroduction of *Strobilidium caudatum* (Fromentel) would cause considerable confusion due to the continued widespread use of the name *Strobilidium gyrans* both prior to Foissner's action (e.g. Kaltenbach, 1960; Deroux, 1974; Foissner & Adam, 1979; Haslauer & Pichler, 1979; Zharikov, 1987) and since (e.g. Heckman, 1990; Jack, Wickham, Toalson & Gilbert, 1993; Wickham, Gilbert, & Berninger, 1993). A further six references by seven authors in the last 12 years are held by the Commission Secretariat. To use the name *Strobilidium caudatum* (Fromentel) for the taxon widely known as *Strobilidium gyrans* would add to the confusion. An additional area of confusion relates to the name *Strobilidium caudatum* established by Kahl (1932) for a different brackish water species. It was not until 1992 that Petz & Foissner pointed out (p. 160) that the reintroduction of the specific name *caudatum* Fromentel in the hitherto unused combination *Strobilidium caudatum* would make *Strobilidium caudatum* Kahl a junior secondary homonym; they renamed it *Strobilidium kahli*. I propose the suppression of the names *Strobilidium caudatum* (Fromentel) and *Strombidium claparedi* Kent in order to maintain the usage of the two names *Strobilidium gyrans* (Stokes) and *Strobilidium caudatum* Kahl.

4. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary powers to suppress the following names for the purposes of the Principle of Priority but not for those of the Principle of Homonymy
 - (a) *caudatum* Fromentel, 1876, as published in the binomen *Strombidion caudatum*;
 - (b) *claparedi* Kent, 1882, as published in the binomen *Strombidium claparedi*;
- (2) to place on the Official List of Specific Names in Zoology the following names:
 - (a) *gyrans* Stokes, 1887, as published in the binomen *Strombidium gyrans*;
 - (b) *caudatum* Kahl, 1932, as published in the binomen *Strobilidium caudatum*;
- (3) to place on the Official Index of Rejected and Invalid Specific Names in Zoology the following names:
 - (a) *caudatum* Fromentel, 1876, as published in the binomen *Strombidion caudatum* and as suppressed in (1)(a) above;
 - (b) *claparedi* Kent, 1882, as published in the binomen *Strombidium claparedi* and as suppressed in (1)(b) above;
 - (c) *kahli* Petz & Foissner, 1992, as published in the binomen *Strobilidium kahli* (a junior objective synonym of *Strobilidium caudatum* Kahl, 1932).

References

- Deroux, G. 1974. Quelques précisions sur *Strobilidium gyrans* Schewiakoff. *Cahiers de Biologie Marine*, 15: 571–588.
- Foissner, W. 1987. Miscellanea nomenclatorica Ciliata (Protozoa: Ciliophora). *Archiv für Protistenkunde*, 133: 219–235.
- Foissner, W. & Adam, H. 1979. Die Bedeutung der stagnierenden Kleingewässer im alpinen Ökosystem. *Jahrbuch der Universität Salzburg*, 1977–1979: 147–158.
- Fromentel, E. 1876. *Études sur les microzoaires ou infusoires proprement dits comprenant de nouvelles recherches sur leur organisation, leur classification et la description des espèces nouvelles ou peu connues*. Pp. 193–364. Masson, Paris.

- Haslauer, J. Jr. & Pichler, W. 1979. Ein Beitrag zur Biologie und Hydrochemie eines stark belasteten Fließgewässers (Gersbach 1977). *Bericht des Naturwissenschaftlich-Medizinischen Vereins in Salzburg*, 3-4: 51-81.
- Heckman, C.W. 1990. The fate of aquatic and wetland habitats in an industrially contaminated section of the Elbe floodplain in Hamburg. *Archiv für Hydrobiologie (Supplement 75) Untersuchungen des Elbe-Aestuars*, 6: 133-250.
- Jack, J.D., Wickham, S.A., Toalson, S. & Gilbert, J.J. 1993. The effect of clays on a freshwater plankton community: an enclosure experiment. *Archiv für Hydrobiologie*, 127: 257-270.
- Kahl, A. 1932. Urtiere oder Protozoa. 1. Wimpertiere oder Ciliata (Infusoria) 3. Spirotricha. Pp. 399-650 in Dahl, M. & Bischoff, H. (Eds.). *Die Tierwelt Deutschlands*, 25. Fischer, Jena.
- Kaltenbach, A. 1960. Ökologische Untersuchungen an Donauciliaten. *Wasser Abwasser, Wien*, 1960: 151-174.
- Kent, W.S. 1882. *A manual of the Infusoria*, vol. 2. Pp. 473-913. Bogue, London.
- Petz, W. & Foissner, W. 1992. Morphology and morphogenesis of *Strombidium caudatum* (Fromentel), *Meseres corlissi* n. sp., *Halteria grandinella* (Müller), and *Strombidium rehwaldi* n. sp., and a proposed phylogenetic system for oligotrich ciliates (Protozoa, Ciliophora). *Journal of Protozoology*, 39: 159-176.
- Stokes, A.C. 1887. Notices of new American fresh-water Infusoria. *Journal of the Royal Microscopical Society*, 1887: 35-40.
- Wickham, S.A., Gilbert, J.J. & Berninger, U.-G. 1993. Effects of rotifers and ciliates on the growth and survival of *Daphnia*. *Journal of Plankton Research*, 15: 317-334.
- Zharikov, V.V. 1987. A new species of fresh-water infusorians (Oligotrichida) from waters of Armenia. *Zoologicheskii Zhurnal*, 66: 930-932. [In Russian; English abstract].